REMARKS

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to pass this application to issue.

This is in full and timely response to the final Office Action mailed May 5, 2003. Reexamination and reconsideration in light of the above amendments and the following remarks is respectfully requested.

Entry of this Amendment is proper under 37 C.F.R. §1.116 since the amendment: (a) places the application in condition for allowance (for the reasons discussed herein); (b) does not raise any new issues requiring further search and/or consideration; (c) satisfies a requirement of form asserted in the previous Office Action; and (d) places the application in better form for appeal, should an appeal be necessary. The amendment is necessary and was not earlier presented because it is made in response to arguments raised in the final rejection. Entry of this amendment is respectfully requested.

By this amendment, claims 1, 6 and 12 were amended to include the element of the filter layer of the third color being made from a dye containing photoresist. Similarly, this element was deleted from claims 3, 8 and 17, respectively. Support for this amendment can be found variously throughout the specification, for example, at least in original claims 3, 8 and 17. No new matter was added. Accordingly, claims 1-17 are pending for the Examiner's reconsideration, with claims 1, 6 and 12 being independent. Reexamination and reconsideration in light of the above amendments and the following remarks is respectfully requested.

Rejections under 35 U.S.C. §102

Claims 1-2, 4, 6-7 and 9-16 were rejected under 35 U.S.C. §103(a) as being anticipated by U.S. Patent No. 4,876,167 to Snow et al. Applicants respectfully traverse this rejection.

Claim 1 recites a method of producing a color filter, comprising the steps of: forming a filter layer of a second color in a substrate region in which a filter element of a first color is to be formed; and overlapping a filter layer of a third color different from said second color on said filter layer of

said second color and on said substrate; wherein two overlapping filter layers form the filter element, and wherein said filter layer of a third color is made from a dye containing photoresist.

Claim 6 recites a color filter comprising: a filter element of a first color, said first color filter element having a filter layer of a second color overlapping a portion of a filter layer of a third color, wherein said first, second and third colors are different from each other, and wherein the second color layer is both in the same row as the third color layer and the second color layer is in a row above the third color layer, and wherein said filter layer of a third color is made from a dye containing photoresist.

Claim 12 recites a solid-state imaging device comprising: a plurality of light receiving sensor portions for photo-electric conversion, provided in a surface layer portion of a substrate; and a color filter provided correspondingly to said plurality of light receiving sensor portions; wherein said color filter has a filter element of a first color having a filter layer of a second color overlapping a portion of a filter layer of a third color, and wherein said filter layer of a third color is made from a dye containing photoresist.

Snow et al. '167 discloses a color filter array containing interlaid sets of laterally displaced filters. Referring to Figs. 1 and 2, a single row of two colors 3 is place o a substrate 1. A second row of colors is then placed on top of the first row. There is no example given such that the same color layer appears in both the first row and the second row.

Still further, Snow et al. '167 has the problem in that imbibing dye after overlapping a layer containing no dye on the other layer positioned below, causes the diffusion of the dye from the overlapping layer to the overlapped layer, and controlling the diffusion length of the dye is difficult.

In contrast, the claim recites that the second color layer, for example 8 in Figs. 1A-1C, is formed in a region in which a filter layer of a first color, for example 7, is to be formed. This forms a first row on the substrate. The filter layer of the second color 8 overlaps a portion of the filter layer of the first color 7, the overlapping portion forming a first filter element 11. Stacking a filter layer of a third color, for example 9, different from said first and second color on each of said non-overlapping portion on each of said filter layer of said first and second color; wherein two stacked

filter layers form a filter element, and at least one filter element forms the color filter. Accordingly, as depicted in Fig. 1C, three different filter elements 10, 11 and 12 can be formed.

Clearly Snow et al. '167 does not disclose, teach or suggest that a color layer can appear in both the first row and the second row.

Still further, as acknowledged by the Office Action at page 5, Snow et al. '167 does not disclose, teach or suggest filter layers made from a dye containing photoresist.

A document can only anticipate a claim if the document discloses, explicitly or implicitly, each and every feature recited in the claim. Verdegall Bros. v. Union Oil Co. of Calif., 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Since Snow et al. '167 fail to disclose, either explicitly or implicitly, at least the above-noted feature recited in independent claims 1, 6 and 12, Snow et al. '167 cannot anticipate the claim. At least in view of the foregoing, claims 1, 6 and 12 are allowable, and the rejection should be reconsidered and withdrawn.

Dependent claims 2 and 4, depending from claim 1, claims 7 and 9-11 depending from claim 6, and claims 13-16 depending from claim 12, are also allowable as depending from allowable base claims, as well as for the additional features they recite. Withdrawal of this §102 rejection with respect to Snow et al. '167 is respectfully requested.

Rejections Under 35 U.S.C. §103:

Claims 3, 8 and 17 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 4,876,167 to Snow et al. in view of U.S. Patent No. 5,140,396 to Needham et al. Applicants respectfully traverse this rejection.

Dependent claim 3 depending from claim 1, claim 8 depending from claim 6, and claim 17 depending from claim 12, are also allowable for the reasons above. Moreover, these claims are further distinguished by the materials recited therein, particularly within the claimed combination. Withdrawal of this rejection is respectfully requested.

As the examiner is likely to apply this rejection to all claim 1-17 based on the Amendments, Applicants will address this rejection as pertaining to all pending claims.

As discussed above, Snow et al. '167 does not disclose, teach or suggest filter layers made from a dye containing photoresist. Snow et al. '167 has the problem in that imbibing dye after

overlapping a layer containing no dye on the other layer positioned below, causes the diffusion of the dye from the overlapping layer to the overlapped layer, and controlling the diffusion length of the dye is difficult.

Needham et al. '396 discloses forming a filter layer on a substrate utilizing a photoresist material. More specifically, Needham et al. '396 discloses and teaches the formation of a single filter layer having a dye. Needham et al. '396 does not disclose, teach or suggest and overlapping filter layer. Accordingly, it would not be obvious to overlap a filter layer made from a dye containing a photoresist on the filter layer, and Needham et al. '396 does not make up for the deficiencies of Snow et al. '167. Still further, even if Needham et al. '396 was applied to Snow et al. '167, the process of Needham et al. '396 would need to be repeated with a different dye to each entire filter layer. See Abstract. Since Needham et al. '396 does not disclose, teach or suggest overlapping layers and only discloses single filter layer having a dye, Needham et al. '396 does not make up for the deficiencies of Snow et al. '167.

Accordingly, a prima facie case of obviousness does not exist, and the rejection should be withdrawn.

Claim 5 was rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 4,876,167 to Snow et al. in view of U.S. Patent No. 5,805,966 to Yamada in further view of EP 726503A2 to Ugai et al. Applicants respectfully traverse this rejection.

Dependent claim 5 depending from claim 1, is also allowable for the reasons above. Moreover, this claim is further distinguished by the materials recited therein, particularly within the claimed combination. Withdrawal of this rejection is respectfully requested.

Conclusion

For the foregoing reasons, claims 1-17 are allowable, and the present application is in condition for allowance. Accordingly, favorable reexamination and reconsideration of the application in light of these amendments and remarks is courteously solicited. If the examiner has any comments or suggestions that would place this application in even better form, the Examiner is requested to telephone the undersigned attorney at the number below.

Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 18-0013, under Order No. SON-1508 from which the undersigned is authorized to draw.

Dated: August 5, 2003

Respectfully submitted,

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Should additional fees be necessary in connection with the filing of this paper, or if a petition for extension of time is required for timely acceptance of same, the Commissioner is hereby authorized to charge Deposit Account No. 180013 for any such fees; and applicant(s) hereby petition for any needed extension of time.

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